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On spiders from the tundra zone of the Kola Peninsula, Russia (Arachnida: Aranei)

О пауках тундровой зоны Кольского полуострова (Arachnida: Aranei)

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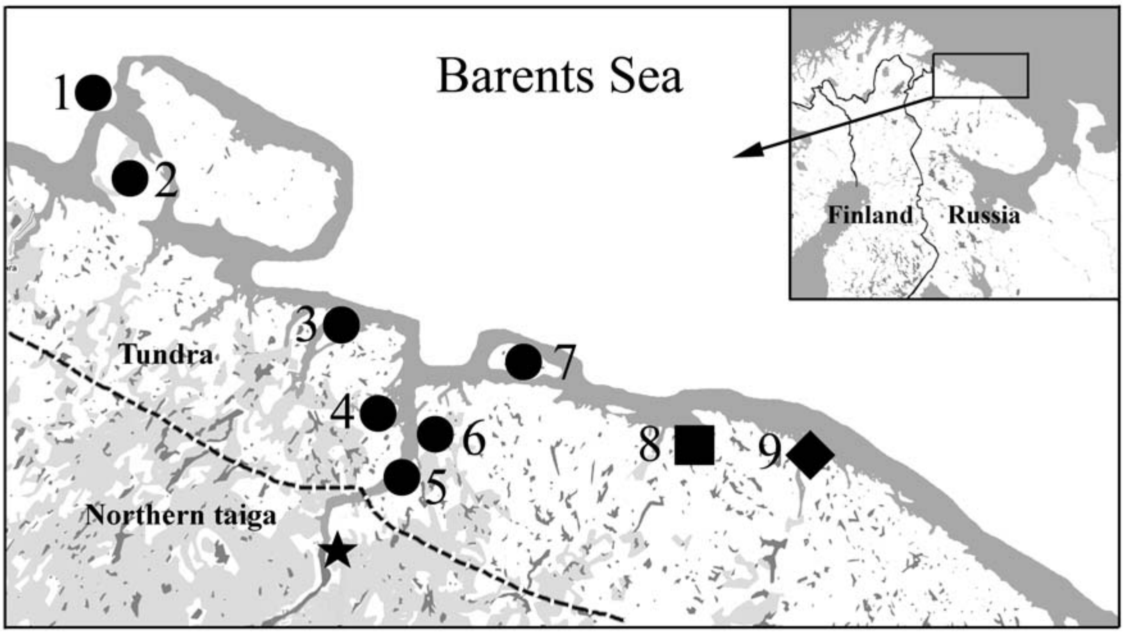
КЛЮЧЕВЫЕ СЛОВА: Пауки, Россия, Кольский п-ов, тундра, хорология, новый синоним.

ABSTRACT. A checklist of 105 spiders from the tundra zone of the Kola Peninsula is based and compiled on the original collections and on available literature data. *Oreoneta sinuosa* (Tullgren, 1955) is reported as a new to the Russian fauna. A new synonym is proposed: *Lepthyphantes murmanicola* Strand, 1913, syn.n. = *Oryphantes angulatus* (O. Pickard-Cambridge, 1881). Some previous misidentifications are rectified. Faunistic data and the distribution pattern are indicated for each species. For the majority of the recorded spiders, the northern coast of the Kola Peninsula is the northernmost point of their known distributions. The spider fauna of the tundra zone of the Kola Peninsula has a typical boreal face, and is composed of widespread or European boreal/polyzonal species. There are no real Arctic elements found here. The zonal plant communities have the fewest spider species, lack of the specific elements, and are comprised of boreal or ubiquitous species. Intrazonal and anthropogenic communities are much richer, and together with azonal communities serve as a shelter not only for the southern elements, but also for the arcto-alpine species.

РЕЗЮМЕ. Приведен аннотированный список 105 видов пауков тундровой зоны Кольского п-ова, составленный на основании недавних сборов и литературных данных. Вид *Oreoneta sinuosa* (Tullgren, 1955) впервые отмечен для фауны России. *Lepthyphantes murmanicola* Strand, 1913, syn.n. признан младшим синонимом *Oryphantes angulatus* (O. Pickard-Cambridge, 1881). Исправлены некоторые ошибочные определения предыдущих авторов. Для каждого вида приведены места находок и тип ареала. Для большинства отмеченных видов северное побережье Кольского п-ова является самой северной точкой распространения. Фауна тундр Кольского п-ова характеризуется отсутствием собственно арктических элементов, имеет типичный бореальный облик и составлена широкоареальными бореальными и полизональными видами. Зональные тундровые сообщества наиболее бедны в таксономическом плане и характеризуются отсутствием специфичных видов. Фауна интразональных, азональных и антропогенно модифицированных сообществ значительно богаче; именно эти типы сообществ служат основным прибежищем не только для южных фаунистических элементов, но и для немногочисленных арктоальпийских видов.

Introduction

The tundra landscape zone of the Kola Peninsula is a narrow belt ca 30–60 km wide (see Map). Owing to a strong vertical partitioning of the territory, numerous lakes and rivers, the tundra landscape is strongly fragmented. The zonal plant communities are represented by different types of the undershrub-moss-lichen tundra vegetation which alternates with open water surfaces, sedge-moss bogs, peatbogs, *Betula* and *Salix* stands in depressions. The tops of hills and abrupt stony slopes are occupied by crustose lichen communities. The seashore is usual narrow, with salt marshes and meadow-like vegetation. Data on 55 spiders known from the tundra zone of Kola Peninsula are contained in two papers (Fedotov [1912] and Shokhin et al. [2004]). New material from Teriberka and Dal'niye Zelentsy has doubled the number of species in this list.



Map. Localities in Kola Peninsula: 1 — Bolshoy Aynovskiy Island; 2 — Rybachiy Peninsula; 3 — Shalim Island; 4 — Sedlovaty Island, Yekaterininskiy Island, Pala Bay, Olen'ya Bay, Murmansk Field Station; 5 — Srednyaya Bay; 6 — Tyuva Bay; 7 — Kildin Island; 8 — Teriberka, Lodeynoye, Logeynaya Bay, Korabelnaya Bay; 9 — Dal'niye Zelentsy; circle — literature data [Fedotov, 1912], square — collecting by L. Rybalov, V. Semenov & V. Piryugin; rhomb — collecting by A. Babenko; asterisk — Murmansk City; dotted line — southern border of tundra landscape zone.

Карта. Точки сборов на Кольском полуострове: 1 — Большой Айновский о-в; 2 — Рыбачий п-ов; 3 — Шалим о-в; 4 — Седловатый о-в, Екатерининский о-в, Пала губа, Оленья губа, Мурманская биологическая станция; 5 — Средняя губа; 6 — Тюва губа; 7 — Кильдин о-в; 8 — Териберка, Лодейное, Лодейная губа, Корабельная губа; 9 — Дальние Зеленцы; круг — литературные данные [Федотов, 1912], квадрат — сборы Л. Рыбалова, В. Семенова и В. Пирюгина; ромб — сборы А. Бабенко; звездочка — г. Мурманск; пунктирная линия — южная граница тундровой зоны.

Material and methods

This study is based mainly on the collections made recently in Teriberka (ca 69°9'N, 35°8'E) by Leonid B. Rybalov and Victor B. Semenov in 3–11.VII.2008, as well as by Victor S. Piryugin in 3–7.VIII.2009. Some material was collected at Dal'niye Zelentsy (ca 69°7'N, 36°3'E) by Anatoly B. Babenko in 4–26.VII. 2009. Spiders were collected by the sifting of moss and litter, soil sampling, pitfall trapping, and hand collecting. In addition, all available literature data on spiders of the northern coast of the Kola Peninsula is compiled. Linyphiids spiders recorded by Shokhin, et al. [2004] from Teriberka were examined. All material is stored in the personal collection of Andrei V. Tanasevitch, Moscow, Russia.

For study of the zonal-landscape distribution of tundra spiders we used the scheme proposed by Chernov [1978] for dividing plant communities in the Subarctic. Based on this classification, there are three main zonal types of communities in tundra (for more details, see Tanasevitch & Koponen [2007]):

Zonal communities — plant communities distributed into one zone and which are situated at the watershed. Zonal communities define the vegetation zonal face of the landscape. For the Kola tundra, this is the polyvariant lichen-moss-undershrub-dwarf birch (or willow-dwarf birch) tundra. In zonal communities, the abiotic factors are more extreme than they are in the intrazonal communities, and living conditions therefore are more adverse.

Intrazonal communities — communities distributed in one or several zones, the typical representatives of this type are swamps and the river valley vegetation, e.g., willow stands on floodplains, meadows, pebble banks, rocky and/or grassy slopes, forest stands on river banks or river terraces, etc. Commonly, parts of intrazonal type of communities are situated on watersheds among zonal type of vegetation: there are willow stands in depressions, shrubby banks of lakes, flat-hill peatbogs with sedge fens or sphagnum bogs in hollows, grassy slopes of small brooks, etc. The intrazonal communities are smoothing gradient of the climatic factors (especially, temperature and humidity), making living conditions substantially better (less pessimal). Some rivers penetrate several zones/subzones and river valleys are powerful channels for the penetration of southern forms to the North and vice versa. Some of southern species can, using intrazonal biotopes, come to watersheds and become part of the tundra fauna.

Azonal communities — plant communities which not confined to a certain zone, but which are distributed in many zones; in the Kola tundra this type is seacoast meadows and marshes.

Anthropogenic communities — these kinds of communities are very common in the North today. It is not

only anthropogenically changed natural vegetation (meadow formation sites, roadsides of roads, etc.), but also dump sites, dustbins, destroyed constructions, and so on.

Distributional pattern of species follows that suggested by Tanasevitch & Koponen [2007] with a few minor changes.

Abbreviation used in text: Zonal, Intra, Azonal & Anthro — zonal, intrazonal, azonal & anthropogenic communities, respectively, L.R. — L. Rybalov, V.S. — V. Semenov, V.P. — V. Piryugin.

List of spiders

Fam. THERIDIIDAE (2)

Robertus lividus (Blackwall, 1836)

2004 *Robertus lividus* — Shokhin et al.: 142.

MATERIAL. **Intra**: 3 ♂♂, Teriberka, Orlovka River valley, elfin *Betula* sp. sparse forest on gentle slope with *Vaccinium myrtillus*, *Cornus suecica*, *Geranium sanguineum*, *Epilobium angustifolium*, *Calamagrostis* sp., 9.VII.2008, leg. L.R. & V. S; 1 ♂, Orlovka River valley, elfin *Betula* sp. sparse forest on gentle slope with *Vaccinium myrtillus*, *Gymnocarpium dryopteris*, *Cornus suecica*, no moss or lichen, 9.VII.2008, leg. L.R. & V.S. **Azonal**: 2 ♂♂, Dal'niye Zelentsy, meadow-like community on slope to sea, pitfall traps, 4–26.VII.2009, leg. A.B. **Anthro**: 1 ♀, ruderal plant community with *Poa* sp., *Deschampsia caespitosa*, *Epilobium angustifolium*, etc., 3.VII.2008, leg. L.R. & V.S.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004].

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. Palaearctic-Alaskan boreo-nemoral.

Robertus scoticus Jackson, 1914

MATERIAL. **Zonal**: 3 ♀♀, Teriberka, near Tretie Titovskoye Lake, dwarf birch-lichen mountain tundra with *Betula nana*, *Cladonia* sp., 4–6.VIII.2009, leg. V.P. **Intra**: 1 ♀, elfin *Betula* sp. sparse forest on hill slope with *Vaccinium myrtillus*, *Gymnocarpium dryopteris*, *Cornus suecica*, *Calamagrostis* sp., no moss or lichen, 10.VII.2008, leg. L.R. & V.S.; 1 ♀, *Betula tortuosa* undergrowth on airfield with *Empetrum* sp., *Vaccinium myrtillus*, *Pleurozium schreberi*, *Hylocomium* sp., etc., 5.VII.2008, leg. L.R. & V.S.; 1 ♀, same, 4–6.VIII.2009, leg. V.P. **Anthro**: 2 ♀♀, ruderal plant community with *Poa* sp., *Deschampsia caespitosa*, *Epilobium angustifolium*, etc., 3.VII.2008, leg. L.R. & V.S.

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. Palaearctic boreo-nemoral.

Fam. LINYPHIIDAE (65)

Agyneta conigera (O. Pickard-Cambridge, 1863)

MATERIAL. **Intra**: 2 ♀♀, Teriberka, Orlovka River valley, elfin *Betula* sp. sparse forest on gentle slope with *Vaccinium myrtillus*, *Cornus suecica*, *Geranium sanguineum*, *Epilobium angustifolium*, *Calamagrostis* sp., 9.VII.2008, leg. L.R. & V.S.

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. Palaearctic boreo-nemoral.

Agyneta mossica (Schikora, 1993)

MATERIAL. **Intra**: 1 ♂, Teriberka, Orlovka River valley, swampy meadow with *Betula nana*, *Carex* sp., *Eriophorum* sp., *Vaccinium oxycoccus*, *Rubus chamaemorus*, *Menyanthes trifoliata*, *Andromeda polifolia*, *Sphagnum* sp., 9.VII.2008, leg. L.R. & V.S.

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. West Palaearctic boreo-nemoral.

Agyneta nigripes (Simon, 1884)

MATERIAL. **Zonal**: 1 ♂, Dal'niye Zelentsy, lichen tundra on top of hill, pitfall traps, 4–26.VII.2009, leg. A.B.

RANGE. Holarctic arcto-alpine.

Allomengea vidua (L. Koch, 1879)

2004 *Allomengea vidua* — Shokhin et al.: 143, examined.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004].

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. Holarctic.

Bathyphantes gracilis (Blackwall, 1841)

MATERIAL. **Intra**: 1 ♂, 1 ♀, Teriberka, *Sphagnum-Carex* bog in tundra, 3.VII.2008, leg. L.R. & V.S.; 1 ♂, 1 ♀, *Carex-Sphagnum-Eriophorum* bog with *Salix* sp. stands & *Comarum palustre*, 6.VII.2008, leg. L.R. & V.S.; 1 ♂, Dal'niye Zelentsy, swampy bank of lake, pitfall traps, 4–26.VII.2009, leg. A.B.

RANGE. Holarctic polyzonal.

Bolephthyphantes index (Thorell, 1856)

1912 *Bolephthyphantes index* — Fedotov: 461.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Murmansk Field Station [Fedotov, 1912].

COMMENTS. This is the northernmost known distribution of the species.

RANGE. Palaearctic boreal-nemoral. Introduced to Greenland [Marusik et. al., 2006].

Bolyphantes luteolus (Blackwall, 1833)

1912 *Bolyphantes luteolus* – Fedotov: 461.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Bolshoy Aynovskiy Island, Rybachiy Peninsula, Lodeynaya Bay [Fedotov, 1912].

COMMENTS. Bolshoy Aynovskiy Island is the northernmost known distribution of the species.

RANGE. Palaearctic boreal-nemoral.

Centromerus arcanus (O. Pickard-Cambridge, 1873)

2004 *Centromerus arcanus* — Shokhin et al.: 143, examined.

MATERIAL. **Zonal**: 3 ♀♀, Teriberka, undershrub-lichen mountain tundra with *Betula nana*, *Vaccinium myrtillus*, *Empetrum* sp., *Pleurozium schreberi*, 4–6.VIII.2009, leg. V.P. **Intra**: 3 ♀♀, elfin *Betula* sp. sparse forest on hill slope with *Vaccinium myrtillus*, *Gymnocarpium dryopteris*, *Cornus suecica*, *Calamagrostis* sp., no moss or lichen, 10.VII.2008, leg. L.R. & V.S.; 1 ♂, 3 ♀♀, Orlovka River valley, elfin *Betula* sp. sparse forest on gentle slope with *Vaccinium myrtillus*, *Gymnocarpium dryopteris*, *Cornus suecica*, no moss or lichen, 9.VII.2008, leg. L.R. & V.S.; 3 ♀♀, Orlovka River valley, swampy meadow with *Betula nana*, *Carex* sp., *Eriophorum* sp., *Vaccinium oxycoccus*, *Rubus chamaemorus*, *Menyanthes trifoliata*, *Andromeda polifolia*, *Sphagnum* sp., 9.VII.2008, leg. L.R. & V.S.; 1 ♂, Dal'niye Zelentsy, *Betula* sp. sparse forest, pitfall traps, 8–26.VII.2009, leg. A.B. **Anthro**: 6 ♀♀, Teriberka, *Betula tortuosa* undergrowth on airfield with *Empetrum* sp., *Vaccinium myrtillus*, *Pleurozium schreberi*, *Hylocomium* sp., etc., 5.VII.2008, leg. L.R. & V.S.; 5 ♀♀, ruderal plant community with *Poa* sp., *Deschampsia caespitosa*, *Epilobium angustifolium*, etc., 3.VII.2008, leg. L.R. & V.S.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004].

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. Palaearctic polyzonal.

Ceratinella brevipes (Westring, 1851)

MATERIAL. **Intra**: 1 ♀, Dal'niye Zelentsy, *Salix* sp. with *Sphagnum* sp. in depression on slope, pitfall traps, 4–26.VII.2009, leg. A.B. **Azonal**: 1 ♀, meadow-like community on slope to sea, pitfall traps, 4–26.VII.2009, leg. A.B.

COMMENTS. This is the northernmost known distribution of the species.

RANGE. Palaearctic polyzonal.

Ceratinella brevis (Wider, 1834)

MATERIAL. **Intra**: 1 ♀, Teriberka, Orlovka River valley, swampy meadows with *Betula nana*, *Carex* sp., *Eriophorum* sp., *Vaccinium oxycoccus*, *Rubus chamaemorus*, *Menyanthes trifoliata*, *Andromeda polifolia*, *Sphagnum* sp., 10.VII.2008, leg. L.R. & V.S.

COMMENTS. Teriberka is the northernmost known distribution of the species. A record of *C. brevis* from Taimyr [Osipov, 2003] is misidentification (material examined).

RANGE. Palaearctic polyzonal.

Ceratinella scabrosa (O. Pickard-Cambridge, 1871)

MATERIAL. **Intra**: 1 ♀, Teriberka, Orlovka River valley, swampy meadow with *Betula nana*, *Carex* sp., *Eriophorum* sp., *Vaccinium oxycoccus*, *Rubus chamaemorus*, *Menyanthes trifoliata*, *Andromeda polifolia*, *Sphagnum* sp., 9.VII.2008, leg. L.R. & V.S.; 1 ♀, *Sphagnum-Carex* bog in tundra, 3.VII.2008, leg. L.R. & V.S.

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. West Palaearctic polyzonal.

Cnephalocotes obscurus (Blackwall, 1834)

2004 *Cnephalocotes obscurus* — Shokhin et al.: 143, examined.

MATERIAL. **Anthro**: 2 ♂♂, Teriberka, *Betula tortuosa* undergrowth on airfield with *Empetrum* sp., *Vaccinium myrtillus*, *Pleurozium schreberi*, *Hylocomium* sp., etc., 4–6.VIII.2009, leg. V.P.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004].

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. Holarctic polyzonal.

Diplocephalus cristatus (Blackwall, 1833)

MATERIAL. **Anthro**: 1 ♂, 1 ♀, Teriberka, meadow in village with *Calamagrostis* sp., *Epilobium angustifolium*, *Matricaria recutita*, *Taraxacum* sp., 11.VII.2008, leg. L.R. & V.S.

COMMENTS. This is the northernmost known distribution of the species.

RANGE. Holarctic boreo-nemoral.

Drepanotylus uncatus (O. Pickard-Cambridge, 1872)

2004 Erigoninae — Shokhin et al.: 143, examined.

MATERIAL. **Intra**: 1 ♂, Teriberka, *Sphagnum-Carex* bog in tundra, 4–6.VIII.2009, leg. V.P.; 1 ♂, *Carex-Sphagnum-Eriophorum* bog with *Salix* sp. stands, *Comarum palustre*, 6.VII.2008, leg. L.R. & V.S.; 2 ♀♀, Dal'niye Zelentsy, sedge-sphagnum peatbog, pitfall traps, 4–26.VII.2009, leg. A.B.; 1 ♀, *Salix* sp. with *Sphagnum* sp. in depression on slope, pitfall traps, 4–26.VII.2009, leg. A.B.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004, as "Erigoninae"].

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. West Palaearctic.

Erigone arctica maritima Kulczyński, 1902

1912 *Erigone arctica* — Fedotov: 457.

2004 *E. arctica* — Shokhin et al.: 143, examined.

MATERIAL. **Intra**: 2 ♀♀, Dal'niye Zelentsy, sandy bank of lake, pitfall traps, 8–16.VII.2009, leg. A.B. **Azonal**: 1 ♀, Teriberka, Orlovka River bay, seacoast marsh, under trash & seaweeds (*Fucus* sp., *Laminaria* sp.), 10.VII.2008, leg. L.R. & V.S. **Anthro**: 2 ♀♀, agricultural meadow with *Deschampsia caespitosa*, *Phleum pratense*, *Epilobium angustifolium*, etc., 4.VII.2008, leg. L.R. & V.S.; 1 ♂, agricultural meadow with *Deschampsia caespitosa*, *Phleum pratense*, *Epilobium angustifolium*, etc., 4.–6.VIII.2009, leg. V.P.

PREVIOUS RECORDS. Srednyaya Bay, Murmansk Field Station [Fedotov, 1912, as *Erigone a.* (White, 1852)]; Teriberka [Shokhin et al., 2004, as *E. a.*].

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. European.

Erigone atra Blackwall, 1833

1912 *Erigone atra* — Fedotov: 456.

MATERIAL. **Anthro**: 2 ♀♀, Teriberka, agricultural meadow with *Deschampsia caespitosa*, *Phleum pratense*, *Epilobium angustifolium*, etc., 4.VII.2008, leg. L.R. & V.S.; 1 ♀, ruderal plant community with *Poa* sp., *Deschampsia caespitosa*, *Epilobium angustifolium*, etc., 3.VII.2008, leg. L.R. & V.S.; 3 ♂♂, 4 ♀♀, meadow in village with *Calamagrostis* sp., *Epilobium angustifolium*, *Matricaria recutita*, *Taraxacum* sp., 11.VII.2008, leg. L.R. & V.S.; 1 ♀, agricultural meadow with *Deschampsia caespitosa*, *Phleum pratense*, *Epilobium angustifolium*, etc., 4–6.VIII.2009, leg. V.P.

PREVIOUS RECORDS. Olen'ya Bay, Srednyaya Bay [Fedotov, 1912].

RANGE. Holarctic polyzonal.

Erigone tirolensis L. Koch, 1872

1912 *Erigone tirolensis* — Fedotov: 454.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Olen'ya Bay [Fedotov, 1912].

RANGE. Holarctic arcto-alpine.

Gonatium rubens (Blackwall, 1833)

MATERIAL. **Zonal**: 1 ♀, Teriberka, near Tretie Titovskoye Lake, dwarf birch-lichen mountain tundra with *Betula nana*, *Cladonia* sp., 4–6.VIII.2009, leg. V.P.; 1 ♂, 3 ♀♀, Dal'niye Zelentsy, lichen tundra on top of hill, pitfall traps, 4–26.VII.2009, leg. A.B.; 1 ♂, 5 ♀♀, lichen tundra on slope of hill, pitfall traps, 4–26.VII.2009, leg. A.B.; 1 ♀, tundra with *Betula nana*, *Vaccinium myrtillus*, *Empetrum* sp. on slope of hill, pitfall traps, 4–26.VII.2009, leg. A.B. **Intra**: 1 ♂, Dal'niye Zelentsy, meadow with *Geranium* sp. in *Betula* sp. & *Salix* sp. stands, pitfall traps, 13–26.VII.2009, leg. A.B. **Azonal**: 1 ♂, meadow-like community on slope to sea, pitfall traps, 4–26.VII.2009, leg. A.B. **Anthro**: 1 ♀, Teriberka, *Betula tortuosa* undergrowth on airfield with *Empetrum* sp., *Vaccinium myrtillus*, *Pleurozium schreberi*, *Hylocomium* sp., etc., 5.VII.2008, leg. L.R. & V.S.; 1 ♀, meadow-like community on wasteland with *Epilobium angustifolium*, *Calamagrostis* sp., *Polytrichum* sp., 7.VII.2008, leg. L.R. & V.S.; 1 ♀, stony wasteland with *Deschampsia caespitosa*, *Phleum pratense*, *Empetrum* sp. & *Cladonia* sp. plots, 4–6.VIII.2009, leg. V.P.

RANGE. Palaearctic polyzonal.

Gongylidiellum latebricola (O. Pickard-Cambridge, 1871)

MATERIAL. **Intra**: 1 ♂, 1 ♀, Teriberka, Orlovka River valley, swampy meadow with *Betula nana*, *Carex* sp., *Eriophorum* sp., *Vaccinium oxycoccus*, *Rubus chamaemorus*, *Menyanthes trifoliata*, *Andromeda polifolia*, *Sphagnum* sp., 9.VII.2008, leg. L.R. & V.S.

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. European polyzonal.

Hilaira herniosa (Thorell, 1875)

2004 *Hilaira herniosa* — Shokhin et al.: 143, examined.

MATERIAL. **Intra**: 1 ♀, Dal'niye Zelentsy, meadow with *Geranium* sp. in *Betula* sp. & *Salix* sp. stands, pitfall traps, 13–26.VII.2009, leg. A.B.

RECORDS. Teriberka [Shokhin et al., 2004].

RANGE. Holarctic boreal.

Hilaira nubigena Hull, 1911

2004 *Hilaira* sp. — Shokhin et al.: 143, examined.

MATERIAL. **Intra**: 1 ♀, Teriberka, *Sphagnum-Carex* bog in tundra, 3.VII.2008, leg. L.R. & V.S.; 3 ♀♀, Dal'niye Zelentsy, sedge-sphagnum peatbog, pitfall traps, 4–26.VII.2009, leg. A.B.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004, as *Hilaira* sp.].

RANGE. Palaearctic-Alaskan boreal.

Hypomma bituberculatum (Wider, 1834)

1912 *Dicyphus bituberculatus* — Fedotov: 454.

2004 *Hypomma bituberculatum* — Shokhin et al.: 143, examined.

MATERIAL. **Intra**: 1 ♂, 2 ♀♀, Teriberka, Orlovka River valley, elfin *Betula* sp. sparse forest on gentle slope with *Vaccinium myrtillus*, *Gymnocarpium dryopteris*, *Cornus suecica*, no moss or lichen, 9.VII.2008, leg. L.R. & V.S.; 2 ♂♂, 3 ♀♀, Orlovka River valley, elfin *Betula* sp. sparse forest on gentle slope with *Vaccinium myrtillus*, *Gymnocarpium dryopteris*, *Cornus suecica*, no moss or lichen, 9.VII.2008, leg. L.R. & V.S.; 1 ♂, 8 ♀♀, *Sphagnum-Carex* bog in tundra, 3.VII.2008, leg. L.R. & V.S.; 2 ♀♀, Dal'niye Zelentsy, sedge-sphagnum peatbog, pitfall traps, 4–26.VII.2009, leg. A.B.; 1 ♂, sedge-sphagnum peatbog, pitfall traps, 4–26.VII.2009, leg. A.B.; 3 ♂♂, 1 ♀, swampy bank of lake, pitfall traps, 4–26.VII.2009, leg. A.B.; 2 ♂♂, meadow with *Geranium* sp. in *Betula* sp. & *Salix* sp. stands, pitfall traps, 13–26.VII.2009, leg. A.B. **Azonal**: 2 ♂♂, 2 ♀♀, Dal'niye Zelentsy, meadow-like community on slope to sea, pitfall traps, 4–26.VII.2009, leg. A.B. **Anthro**: 1 ♀, Teriberka, agricultural meadow with *Deschampsia caespitosa*, *Phleum pratense*, *Epilobium angustifolium*, etc., 4.VII.2008, leg. L.R. & V.S.; 1 ♂, 13 ♀, ruderal plant community with *Poa* sp., *Deschampsia caespitosa*, *Epilobium angustifolium*, etc., 3.VII.2008, leg. L.R. & V.S.

PREVIOUS RECORDS. Murmansk Field Station [Fedotov, 1912, as *Dicyphus b*.]; Teriberka [Shokhin et al., 2004].

RANGE. Palaearctic polyzonal.

Hypselistes jacksoni (O. Pickard-Cambridge, 1902)

MATERIAL. **Zonal**: 1 ♀, Dal'niye Zelentsy, lichen tundra on top of hill, pitfall traps, 4–26.VII.2009, leg. A.B.; 2 ♀♀, lichen tundra on slope of hill, pitfall traps, 4–26.VII.2009, leg. A.B.; 3 ♀♀, tundra with *Betula nana*, *Vaccinium myrtillus*, *Empetrum* sp. on slope of hill, pitfall traps, 4–26.VII.2009, leg. A.B. **Intra**: 2 ♂♂, Teriberka, *Sphagnum-Carex* bog in tundra, 3.VII.2008, leg. L.R. & V.S.

RANGE. Palaearctic-W-Nearctic boreo-nemoral.

Kaestneria pullata (O. Pickard-Cambridge, 1863)

MATERIAL. **Intra**: 1 ♀, Teriberka, *Sphagnum-Carex* bog in tundra, 3.VII.2008, leg. L.R. & V.S.

RANGE. Holarctic polyzonal.

Leptorhoptrum robustum (Westring, 1851)

2004 *Leptorhoptrum robustum* — Shokhin et al.: 143, examined.

MATERIAL. **Intra**: 1 ♂, Dal'niye Zelentsy, meadow with *Geranium* sp. in *Betula* sp. & *Salix* sp. stands, pitfall traps, 13–26.VII.2009, leg. A.B.; 2 ♀♀, *Salix* sp. with *Sphagnum* sp. in depression on slope, pitfall traps, 4–26.VII.2009, leg. A.B. **Anthro**: 1 ♀, Teriberka, agricultural meadow with *Deschampsia caespitosa*, *Phleum pratense*, *Epilobium angustifolium*, etc., 4–6.VIII.2009, leg. V.P.; 1 ♀, agricultural meadow on airfield with *Deschampsia caespitosa* & *Epilobium angustifolium*, 5.VII.2008, leg. L.R. & V.S.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004].

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. Palaearctic boreo-nemoral.

Macrargus multesimus (O. Pickard-Cambridge, 1875)

MATERIAL. **Zonal**: 1 ♀, Teriberka, dwarf birch-lichen mountain tundra with *Betula nana*, *Cladonia* sp., 6.VII.2008, leg. L.R. & V.S.

RANGE. Holarctic boreal.

Maso sundevalli (Westring, 1851)

MATERIAL. **Intra**: 1 ♀, Teriberka, Orlovka River valley, elfin *Betula* sp. sparse forest on gentle slope with *Vaccinium myrtillus*, *Cornus suecica*, *Geranium sanguineum*, *Epilobium angustifolium*, *Calamagrostis* sp., 9.VII.2008, leg. L.R. & V.S.; 2 ♀♀, *Sphagnum-Carex* bog in tundra, 3.VII.2008, leg. L.R. & V.S. **Anthro**: 1 ♂, *Betula tortuosa* undergrowth on airfield with *Empetrum* sp., *Vaccinium myrtillus*, *Pleurozium schreberi*, *Hylocomium* sp., etc., 5.VII.2008, leg. L.R. & V.S.

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. Holarctic polyzonal.

Mecynargus borealis (Jackson, 1930)

MATERIAL. **Anthro**: 1 ♂, 1 ♀, Teriberka, agricultural meadow on airfield with *Deschampsia caespitosa* & *Epilobium angustifolium*, 5.VII.2008, leg. L.R. & V.S.

RANGE. Holarctic boreal.

Mecynargus monticola (Holm, 1943)

MATERIAL. **Zonal**: 6 ♀♀, Teriberka, near Titovskoye Lake, dwarf birch-lichen mountain tundra with *Betula nana*, *Cladonia* sp., 4–6.VIII.2009, leg. V.P. **Intra**: 2 ♀♀, *Carex-Sphagnum-Eriophorum* bog with *Salix* sp. stands, 4–6.VIII.2009, leg. V.P.

RANGE. Palaearctic-W-Nearctic boreal.

Mecynargus morulus (O. Pickard-Cambridge, 1873)

2004 *Semljicola faustus* — Shokhin et al.: 143, examined.

MATERIAL. **Zonal**: 1 ♀, Teriberka, undershrub-moss tundra with *Empetrum* sp., *Rubus chamaemorus*, *Pleurozium schreberi*, 4.VII.2008, leg. L.R. & V.S.; 1 ♂, 1 ♀, undershrub-lichen mountain tundra with *Betula nana*, *Vaccinium myrtillus*, *Empetrum* sp., *Pleurozium schreberi*, 7.VII.2008, leg. L.R. & V.S.; 1 ♂, 1 ♀, dwarf birch-lichen mountain tundra with *Betula nana*, *Cladonia* sp., 12.VII.2008, leg. L.R. & V.S.; 2 ♂♂, 2 ♀♀, undershrub-moss-lichen mountain tundra with *Empetrum* sp., *Vaccinium myrtillus*, *Pleurozium schreberi*, *Dicranum* sp., *Cladonia* sp., 10.VII.2008, leg. L.R. & V.S.; 1 ♀, undershrub-lichen mountain tundra with *Empetrum* sp., *Arctous alpina*, *Cladonia* sp., no moss or lichen, 9.VII.2008, leg. L.R. & V.S.; 4 ♂♂, 3 ♀♀, near Titovskoye Lake, dwarf birch-lichen mountain tundra with *Betula nana*, *Cladonia* sp., 4–6.VIII.2009, leg. V.P.; 1 ♂, undershrub-moss-lichen mountain tundra with *Betula nana*, *Empetrum* sp., *Pleurozium schreberi*, *Cladonia* sp., *Cetraria* sp., 4–6.VIII.2009, leg. V.P.; 3 ♂♂, 4 ♀♀, near Tretie Titovskoye Lake, dwarf birch-lichen mountain tundra with *Betula nana*, *Cladonia* sp., 4–6.VIII.2009, leg. V.P.; 2 ♀♀, *Sphagnum-Carex* bog in tundra, 3.VII.2008, leg. L.R. & V.S. **Intra**: 4 ♀♀, Teriberka, Orlovka River valley, swampy meadow with *Betula nana*, *Carex* sp., *Eriophorum* sp., *Vaccinium oxycoccus*, *Rubus chamaemorus*, *Menyanthes trifoliata*, *Andromeda polifolia*, *Sphagnum* sp., 9.VII.2008, leg. L.R. & V.S. **Anthro**: 1 ♂, 1 ♀, Teriberka, agricultural meadow on airfield with *Deschampsia caespitosa* & *Epilobium angustifolium*, 5.VII.2008, leg. L.R. & V.S.; 2 ♂♂, 2 ♀♀, meadow-like community on wasteland with *Epilobium angustifolium*, *Calamagrostis* sp., *Polytrichum* sp., 7.VII.2008, leg. L.R. & V.S.; 1 ♀, stony wasteland with *Deschampsia caespitosa*, *Phleum pratense*, *Empetrum* sp. & *Cladonia* sp. plots, 4–6.VIII.2009, leg. V.P.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004, as *Semljicola faustus* (O. Pickard-Cambridge, 1900)].

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. European boreo-nemoral.

Mecynargus paetulus (O. Pickard-Cambridge, 1875)

MATERIAL. **Anthro**: 1 ♂, 1 ♀, Teriberka, agricultural meadow with *Deschampsia caespitosa*, *Phleum pratense*, *Epilobium angustifolium*, etc., 4–6.VIII.2009, leg. V.P.

RANGE. Holarctic boreo-nemoral.

Mecynargus sphagnicola (Holm, 1939)

MATERIAL. **Anthro**: 1 ♀, Teriberka, ruderal plant community with *Poa* sp., *Deschampsia caespitosa*, *Epilobium angustifolium*, etc., 3.VII.2008, leg. L.R. & V.S.

RANGE. Fennoscandian-Siberian-W-Nearctic boreal.

Metopobactrus prominulus (O. Pickard-Cambridge, 1872)

MATERIAL. **Zonal**: 1 ♀, Teriberka, undershrub-moss tundra with *Empetrum* sp., *Rubus chamaemorus*, *Pleurozium schreberi*, 4–6.VIII.2009, leg. V.P.; 1 ♂, Dal'niye Zelentsy, lichen tundra on top of hill, pitfall traps, 4–26.VII.2009, leg. A.B.

RANGE. Holarctic polyzonal.

Micrargus herbigradus (Blackwall, 1854)

MATERIAL. **Anthro**: 2 ♀♀, Teriberka, ruderal plant community with *Poa* sp., *Deschampsia caespitosa*, *Epilobium angustifolium*, etc., 3.VII.2008, leg. L.R. & V.S.

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. Palaearctic boreo-nemoral.

Minicia marginella (Wider, 1834)

MATERIAL. **Anthro**: 1 ♀, Teriberka, *Betula tortuosa* undergrowth on airfield with *Empetrum* sp., *Vaccinium myrtillus*, *Pleurozium schreberi*, *Hylocomium* sp., etc., 4–6.VIII.2009, leg. V.P.

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. Palaearctic polyzonal.

Minyrioloides trifrons (O. Pickard-Cambridge, 1863)

MATERIAL. **Intra**: 1 ♂, 2 ♀♀, Teriberka, Orlovka River valley, elfin *Betula* sp. sparse forest on gentle slope with *Vaccinium myrtillus*, *Cornus suecica*, *Geranium sanguineum*, *Epilobium angustifolium*, *Calamagrostis* sp., 9.VII.2008, leg. L.R. & V.S.

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. Holarctic boreo-nemoral.

Minyriolus pusillus (Wider, 1834)

MATERIAL. **Anthro**: 1 ♀, Teriberka, ruderal plant community with *Poa* sp., *Deschampsia caespitosa*, *Epilobium angustifolium*, etc., 3.VII.2008, leg. L.R. & V.S.; 1 ♀, *Betula tortuosa* undergrowth on airfield with *Empetrum* sp., *Vaccinium myrtillus*, *Pleurozium schreberi*, *Hylocomium* sp., etc., 4–6.VIII.2009, leg. V.P.

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. Palaearctic boreo-nemoral.

Oedothorax gibbosus (Blackwall, 1841)

MATERIAL. **Intra**: 1 ♂, Teriberka, *Carex-Sphagnum-Eriophorum* bog with *Salix* sp. stands, *Comarum palustre*, 6.VII.2008, leg. L.R. & V.S.

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. West Palaearctic polyzonal.

Oedothorax retusus (Westring, 1851)

1912 *Kulczynskiellum retusum* — Fedotov: 454.

2004 *Oedothorax apicatus* — Shokhin et al.: 143, examined.

MATERIAL. **Zonal**: 1 ♂, Teriberka, undershrub-moss tundra with *Empetrum* sp., *Rubus chamaemorus*, *Pleurozium schreberi*, 4.VII.2008, leg. L.R. & V.S.; 2 ♀♀, Dal'niye Zelentsy, lichen tundra on slope of hill, pitfall traps, 4–26.VII.2009, leg. A.B. **Intra**: 1 ♂, Teriberka, Orlovka River valley, swampy meadows with *Betula nana*, *Carex* sp., *Eriophorum* sp., *Vaccinium oxycoccus*, *Rubus chamaemorus*, *Menyanthes trifoliata*, *Andromeda polifolia*, *Sphagnum* sp. 10.VII.2008, leg. L.R. & V.S.; 2 ♂♂, 1 ♀, Dal'niye Zelentsy, flood peddle bank of river, pitfall traps, 8–20.VII.2009, leg. A.B.; 1 ♂, swampy bank of lake, pitfall traps, 4–26.VII.2009, leg. A.B.; 4 ♀♀, *Salix* sp. with *Sphagnum* sp. in depression on slope, pitfall traps, 4–26.VII.2009, leg. A.B. **Azonal**: 1 ♀, Dal'niye Zelentsy, meadow-like plant community on slope to sea, pitfall traps, 4–14.VII.2009, leg. A.B. **Anthro**: 1 ♂, 4 ♀♀, Teriberka, ruderal plant community with *Poa* sp., *Deschampsia caespitosa*, *Epilobium angustifolium*, etc., 3.VII.2008, leg. L.R. & V.S.; 1 ♂, 1 ♀, agricultural meadow with *Deschampsia caespitosa*, *Phleum pratense*, *Epilobium angustifolium*, etc., 4.VII.2008, leg. L.R. & V.S.; 2 ♀♀, agricultural meadow on airfield with *Deschampsia caespitosa* & *Epilobium angustifolium*, 5.VII.2008, leg. L.R. & V.S.; 1 ♀, meadow in village with *Calamagrostis* sp., *Epilobium angustifolium*, *Matricaria recutita*, *Taraxacum* sp., 11.VII.2008, leg. L.R. & V.S.

PREVIOUS RECORDS. Pala Bay [Fedotov, 1912, as *Kulczynskiellum r*.]; Teriberka [Shokhin et al., 2004, as *Oedothorax apicatus* (Blackwall, 1850)].

RANGE. Palaearctic polyzonal.

Oreoneta sinuosa (Tullgren, 1955)

1912 *Hilaira frigida* — Fedotov: 457.

2004 *Hilaira tatrica* — Shokhin et al.: 143, examined.

MATERIAL. **Anthro**: 1 ♀, Teriberka, stony wasteland with *Deschampsia caespitosa*, *Phleum pratense*, *Empetrum* sp. & *Cladonia* sp. plots, 5.VII.2008, leg. L.R. & V.S.; 1 ♀, agricultural meadow on airfield with *Deschampsia caespitosa* & *Epilobium angustifolium*, 5.VII.2008, leg. L.R. & V.S.; 1 ♂, stony wasteland with *Deschampsia caespitosa*, *Phleum pratense*, *Empetrum* sp. & *Cladonia* sp. plots, 4–6.VIII.2009, leg. V.P.

PREVIOUS RECORDS. Srednyaya Bay [Fedotov, 1912, as *Hilaira frigida* (Thorell, 1872)]. Teriberka [Shokhin et al., 2004, as *H. tatrica* Kulczyński, 1915].

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. Fennoscandian.

Oreonetides vaginatus (Thorell, 1872)

1912 *Oreonetides vaginatus* — Fedotov: 458.

2004 *Saaristoa abnormis* — Shokhin et al.: 143, examined.

PREVIOUS RECORDS. Olen'ya Bay, Pala Bay [Fedotov, 1912]; Teriberka [Shokhin et al., 2004, as *Saaristoa abnormis* (Blackwall, 1841)].

RANGE. Holarctic boreal.

Oryphantes angulatus (O. Pickard-Cambridge, 1881)

1912 *Lepthyphantes* sp. — Fedotov: 459, pl. 8: 8, 9.

1913 *L. murmanicola* Strand: 42, **syn.n.**

1942 *L. obscurus* Fedotov. — Roewer: 551, incorrect citation.

2004 *L. angulatus* — Shokhin et al.: 143, examined.

MATERIAL. **Intra**: 3 ♀♀, Teriberka, elfin *Betula* sp. sparse forest on hill slope with *Vaccinium myrtillus*, *Gymnocarpium dryopteris*, *Cornus suecica*, *Calamagrostis* sp., no moss or lichen, 10.VII.2008, leg. L.R. & V.S.; 1 ♀, Orlovka River valley, swampy meadow with *Betula nana*, *Carex* sp., *Eriophorum* sp., *Vaccinium oxycoccus*, *Rubus chamaemorus*, *Menyanthes trifoliata*, *Andromeda polifolia*, *Sphagnum* sp., 9.VII.2008, leg. L.R. & V.S.; 2 ♀♀, *Sphagnum-Carex* bog in tundra, 3.VII.2008, leg. L.R. & V.S.; 1 ♂, Dal'niye Zelentsy, swampy bank of lake, pitfall traps, 4–26.VII.2009, leg. A.B.

PREVIOUS RECORDS. Rybachiy Peninsula, Zemlyanoye [Fedotov, 1912, as *Lepthyphantes* sp.]; Teriberka [Shokhin et al., 2004, as *L. a.*].

TAXONOMIC REMARKS. In his paper on the spiders of Murmansk Area, Fedotov [1912] reported on and illustrated a single female of *Lepthyphantes* sp. from Rybachiy Peninsula and noted that the species would probably be a new species similar to *L. angulipalpis* (Westring, 1851). Later on, this species was named by Strand [1913] as *L. murmanicola* Strand, 1913. According to the original figures by Fedotov [1912: pl. 8: 8, 9], the latter author unambiguously dealt with a female of *Oryphantes angulatus*, and therefore it is safe to conclude that the name *L. murmanicola* is to be treated as its junior synonym (**syn.n.**). The findings of *O. angulatus* in the regions close to the *L. murmanicola* type locality [see Shokhin et al., 2004 and present paper] further support this conclusion.

COMMENTS. Rybachiy Peninsula is the northernmost known distribution of the species.

RANGE. European boreo-nemoral.

Pelecopsis mengei Simon, 1926

2004 *Pelecopsis elongata* — Shokhin et al.: 143, examined.

MATERIAL. **Intra**: 2 ♂♂, 8 ♀♀, Teriberka, Orlovka River valley, elfin *Betula* sp. sparse forest on gentle slope with *Vaccinium myrtillus*, *Cornus suecica*, *Geranium sanguineum*, *Epilobium angustifolium*, *Calamagrostis* sp., 9.VII.2008, leg. L.R. & V.S.; 1 ♀, Orlovka River valley, elfin *Betula* sp. sparse forest on gentle slope with *Vaccinium myrtillus*, *Gymnocarpium dryopteris*, *Cornus suecica*, no moss or lichen, 9.VII.2008, leg. L.R. & V.S.; 1 ♀, *Sphagnum-Carex* bog in tundra, 3.VII.2008, leg. L.R. & V.S.; 1 ♀, Orlovka River valley, swampy meadows with *Betula nana*, *Carex* sp., *Eriophorum* sp., *Vaccinium oxycoccus*, *Rubus chamaemorus*, *Menyanthes trifoliata*, *Andromeda polifolia*, *Sphagnum* sp. 10.VII.2008, leg. L.R. & V.S.; 1 ♀, Dal'niye Zelentsy, sedge-sphagnum peatbog, pitfall traps, 4–26.VII.2009, leg. A.B.; 2 ♀♀, meadow with *Geranium* sp. in *Betula* sp. & *Salix* sp. stands, pitfall traps, 13–26.VII.2009, leg. A.B.; 1 ♂, *Betula* sp. sparse forest, pitfall traps, 8–26.VII.2009, leg. A.B. **Azonal**: 3 ♀, Dal'niye Zelentsy, meadow-like community on slope to sea, pitfall traps, 4–26.VII.2009, leg. A.B. **Anthro**: 1 ♀, Teriberka, *Betula tortuosa* undergrowth on airfield with *Empetrum* sp., *Vaccinium myrtillus*, *Pleurozium schreberi*, *Hylocomium* sp., etc., 5.VII.2008, leg. L.R. & V.S.; 1 ♂, 1 ♀, ruderal plant community with *Poa* sp., *Deschampsia caespitosa*, *Epilobium angustifolium*, etc., 3.VII.2008, leg. L.R. & V.S.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004, as *Pelecopsis elongata* (Wider, 1834)].

RANGE. Holarctic polyzonal.

Pocadicnemis pumila (Blackwall, 1841)

2004 *Pocadicnemis pumila* — Shokhin et al.: 143, examined.

MATERIAL. **Intra**: 5 ♂♂, 26 ♀♀, Teriberka, elfin *Betula* sp. sparse forest on hill slope with *Vaccinium myrtillus*, *Gymnocarpium dryopteris*, *Cornus suecica*, *Calamagrostis* sp., no moss or lichen, 9–10.VII.2008, leg. L.R. & V.S.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004].

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. Holarctic polyzonal.

Poeciloneta variegata (Blackwall, 1841)

1912 *Poeciloneta variegata* — Fedotov: 458.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Murmansk Field Station [Fedotov, 1912].

COMMENTS. This is the northernmost known distribution of the species.

RANGE. Palaearctic-W-Nearctic polyzonal.

Porrhomma convexum (Westring, 1851)

1912 *Porrhomma norvegicum* — Fedotov: 457.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Pala Bay [Fedotov, 1912, as *Porrhomma norvegicum* Strand, 1901].

COMMENTS. This is the northernmost known distribution of the species.

RANGE. European polyzonal. All records of *P. convexum* in the Nearctic require confirmation.

Porrhomma egeria Simon, 1884

2004 *Porrhomma convexum* — Shokhin et al.: 143, examined.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004, as *Porrhomma convexum*].

COMMENTS. This is the northernmost known distribution of the species.

RANGE. European boreo-nemoral.

Semljicola barbiger (L. Koch, 1879)

MATERIAL. **Zonal**: 1 ♀, Teriberka, undershrub-moss tundra with *Empetrum* sp., *Rubus chamaemorus*, *Pleurozium schreberi*, 4–6.VIII.2009, leg. V.P. **Intra**: 1 ♂, Dal'niye Zelentsy, swampy bank of lake, pitfall traps, 4–26.VII.2009, leg. A.B.

RANGE. Fennoscandian-Siberian arcto-boreal.

Semljicola faustus (O. Pickard-Cambridge, 1900)

MATERIAL. **Azonal**: 1 ♂, Dal'niye Zelentsy, meadow-like community on slope to sea, pitfall traps, 4–26.VII.2009, leg. A.B.

COMMENTS. This is the northernmost known distribution of the species.

RANGE. Fennoscandian-Siberian boreal.

Semljicola lapponicus (Holm, 1939)

MATERIAL. **Intra**: 2 ♀♀, Teriberka, *Sphagnum*-*Carex* bog in tundra, 4–6.VIII.2009, leg. V.P.; 2 ♂♂, 2 ♀♀, *Carex*-*Sphagnum*-*Eriophorum* bog with *Salix* sp. stands, 4–6.VIII.2009, leg. V.P. **Anthro**: 1 ♀, Teriberka, agricultural meadow with *Deschampsia caespitosa*, *Phleum pratense*, *Epilobium angustifolium*, etc., 4.–6.VIII.2009, leg. V.P.

RANGE. Fennoscandian-Siberian-W-Nearctic boreal.

Silometopus reussi (Thorell, 1871)

MATERIAL. **Anthro**: 1 ♂, 7 ♀♀, Teriberka, agricultural meadow with *Deschampsia caespitosa*, *Phleum pratense*, *Epilobium angustifolium*, etc., 4.VII.2008, leg. L.R. & V.S.

COMMENTS. This is the northernmost known distribution of the species.

RANGE. Palaearctic boreo-nemoral.

Sisicus apertus (Holm, 1939)

MATERIAL. **Zonal**: 1 ♀, Teriberka, undershrub-lichen mountain tundra with *Betula nana*, *Vaccinium myrtillus*, *Empetrum* sp., *Pleurozium schreberi*, 4–6.VIII.2009, leg. V.P.

COMMENTS. This is the northernmost known distribution of the species.

RANGE. Holarctic boreo-nemoral.

Tapinocyba pallens (O. Pickard-Cambridge, 1872)

MATERIAL. **Intra**: 3 ♀♀, Teriberka, elfin *Betula* sp. sparse forest on hill slope with *Vaccinium myrtillus*, *Gymnocarpium dryopteris*, *Cornus suecica*, *Calamagrostis* sp., no moss or lichen, 10.VII.2008, leg. L.R. & V.S.

COMMENTS. This is the northernmost known distribution of the species.

RANGE. European boreo-nemoral.

Tenuiphantes alacris (Blackwall, 1853)

1912 *Lepthyphantes alacris* — Fedotov: 459.

2004 *L. alacris* — Shokhin et al.: 143, examined.

MATERIAL. **Azonal**: 1 ♂, 1 ♀, Dal'niye Zelentsy, meadow-like community on slope to sea, pitfall traps, 4–26.VII.2009, leg. A.B.

PREVIOUS RECORDS. Murmansk Field Station [Fedotov, 1912, as *Lepthyphantes a.*]; Teriberka [Shokhin et al., 2004, as *L. a.*].

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. Palaearctic polyzonal.

Tenuiphantes nigriventris (L. Koch, 1879)

MATERIAL. **Intra**: 1 ♂, Teriberka, Orlovka River valley, elfin *Betula* sp. sparse forest on gentle slope with *Vaccinium myrtillus*, *Cornus suecica*, *Geranium sanguineum*, *Epilobium angustifolium*, *Calamagrostis* sp., 9.VII.2008, leg. L.R. & V.S.; 1 ♀, Orlovka River valley, elfin *Betula* sp. sparse forest on gentle slope with *Vaccinium myrtillus*, *Gymnocarpium dryopteris*, *Cornus suecica*, no moss or lichen, 9.VII.2008, leg. L.R. & V.S.

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. Holarctic boreo-nemoral.

Tenuiphantes tenebricola (Wider, 1834)

MATERIAL. **Anthro**: 1 ♂, 1 ♀, Teriberka, ruderal plant community with *Poa* sp., *Deschampsia caespitosa*, *Epilobium angustifolium*, etc., 3.VII.2008, leg. L.R. & V.S.

COMMENTS. This is the northernmost known distribution of the species.

RANGE. Palaearctic boreo-nemoral.

Tiso aestivus (L. Koch, 1872)

MATERIAL. **Zonal**: 1 ♂, Dal'niye Zelentsy, lichen tundra on top of hill, pitfall traps, 4–26.VII.2009, leg. A.B.; **Anthro**: 1 ♀, Teriberka, meadow-like community on wasteland with *Epilobium angustifolium*, *Calamagrostis* sp., *Polytrichum* sp., 7.VII.2008, leg. L.R. & V.S.

RANGE. Holarctic polyzonal.

Wabasso replicatus (Holm, 1950)

MATERIAL. **Intra**: 1 ♂, Teriberka, *Carex-Sphagnum-Eriophorum* bog with *Salix* sp. stands, *Comarum palustre*, 6.VII.2008, leg. L.R. & V.S.; 2 ♀♀, *Carex-Sphagnum-Eriophorum* bog with *Salix* sp. stands, 4–6.VIII.2009, leg. V.P.

RANGE. West Palaearctic boreal.

Walckenaeria capito (Westring, 1861)

2004 *Walckenaeria* sp. — Shokhin et al.: 143, examined.

MATERIAL. **Anthro**: 1 ♀, Teriberka, *Betula tortuosa* undergrowth on airfield with *Empetrum* sp., *Vaccinium myrtillus*, *Pleurozium schreberi*, *Hylocomium* sp., etc., 4–6.VIII.2009, leg. V.P.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004, as *Walckenaeria* sp.].

COMMENTS. This is the northernmost known distribution of the species.

RANGE. Holarctic polyzonal.

Walckenaeria cuspidata Blackwall, 1833

2004 *Walckenaeria* sp. — Shokhin et al.: 143, examined.

MATERIAL. **Intra**: 3 ♀♀, Dal'niye Zelentsy, meadow with *Geranium* sp. in *Betula* sp. & *Salix* sp. stands, pitfall traps, 13–26.VII.2009, leg. A.B. **Azonal**: 1 ♀, meadow-like community on slope to sea, pitfall traps, 4–26.VII.2009, leg. A.B.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004, as *Walckenaeria.* sp.].

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. Holarctic polyzonal.

Walckenaeria karpinskii (O. Pickard-Cambridge, 1873)

2004 *Walckenaeria karpinskii* — Shokhin et al.: 143, examined.

MATERIAL. **Zonal**: 1 ♂, Teriberka, near Titovskoye Lake, dwarf birch-lichen mountain tundra with *Betula nana*, *Cladonia* sp., 4–6.VIII.2009, leg. V.P.; 3 ♂♂, 4 ♀♀, near Tretie Titovskoye Lake, dwarf birch-lichen mountain tundra with *Betula nana*, *Cladonia* sp., 4–6.VIII.2009, leg. V.P. 1 ♀, Dal'niye Zelentsy, lichen tundra on slope of hill, pitfall traps, 4–26.VII.2009, leg. A.B.; 1 ♀, tundra with *Betula nana*, *Vaccinium myrtillus*, *Empetrum* sp. on slope of hill, pitfall traps, 4–26.VII.2009, leg. A.B. **Anthro**: 1 ♀, Teriberka, ruderal plant community with *Poa* sp., *Deschampsia caespitosa*, *Epilobium angustifolium*, etc., 3.VII.2008, leg. L.R. & V.S.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004].

RANGE. Fennoscandian-Siberian-Nearctic boreal.

Walckenaeria kochi (O. Pickard-Cambridge, 1872)

MATERIAL. **Intra**: 1 ♀, Teriberka, *Carex-Sphagnum-Eriophorum* bog with *Salix* sp. stands, 4–6.VIII.2009, leg. V.P.

COMMENTS. This is the northernmost known distribution of the species.

RANGE. Palaearctic boreo-nemoral.

Walckenaeria mitrata (Menge, 1868)

2004 *Walckenaeria mitrata* — Shokhin et al.: 143, examined.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004].

COMMENTS. This is the northernmost known distribution of the species.

RANGE. European boreo-nemoral.

Walckenaeria nudipalpis (Westring, 1851)

2004 *Walckenaeria nudipalpis* — Shokhin et al.: 143, examined.

MATERIAL. **Anthro**: 2 ♀♀, Teriberka, ruderal plant community with *Poa* sp., *Deschampsia caespitosa*, *Epilobium angustifolium*, etc., 3.VII.2008, leg. L.R. & V.S.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004].

COMMENTS. This is the northernmost known distribution of the species.

RANGE. Palaearctic polyzonal.

Zornella cultrigera (L. Koch, 1879)

2004 Erigoninae — Shokhin et al.: 143, examined.

MATERIAL. **Intra**: 1 ♂, 1 ♀, Teriberka, Orlovka River valley, elfin *Betula* sp. sparse forest on gentle slope with *Vaccinium myrtillus*, *Gymnocarpium dryopteris*, *Cornus suecica*, no moss or lichen, 9.VII.2008, leg. L.R. & V.S.; 2 ♀♀, Dal'niye Zelentsy, *Betula* sp. sparse forest, pitfall traps, 8–26.VII.2009, leg. A.B. **Anthro**: 1 ♀, Teriberka, ruderal plant community with *Poa* sp., *Deschampsia caespitosa*, *Epilobium angustifolium*, etc., 3.VII.2008, leg. L.R. & V.S.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004, as "Erigoninae"].

RANGE. Holarctic boreal.

Fam. TETRAGNATHIDAE (1)

Tetragnatha extensa (Linnaeus, 1758)

1912 *Tetragnatha extensa* — Fedotov: 461.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Olen'ya Bay [Fedotov, 1912].

RANGE. Holarctic polyzonal.

Fam. ARANEIDAE (3)

Araneus diadematus Clerck, 1757

1912 *Araneus diadematus* — Fedotov: 462.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Murmansk Field Station [Fedotov, 1912].

RANGE. Holarctic polyzonal.

Larinioides cornutus (Clerck, 1757)

1912 *Araneus cornutus* — Fedotov: 462.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Olen'ya Bay [Fedotov, 1912, as *Araneus c.*].

RANGE. Holarctic polyzonal.

Larinioides patagiatus (Clerck, 1757)

1912 *Araneus patagiatus* — Fedotov: 462.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Murmansk Field Station, Pala Bay [Fedotov, 1912, as *Araneus p.*].

RANGE. Holarctic polyzonal.

Fam. LYCOSIDAE (15)

Alopecosa aculeata (Clerck, 1757)

1912 *Tarentula aculeata* — Fedotov: 464.

2004 *T. aculeata* — Shokhin et al.: 142.

MATERIAL. **Intra**: 3 ♂♂, Dal'niye Zelentsy, *Salix* sp. with *Sphagnum* sp. in depression on slope, pitfall traps, 4–26.VII.2009, leg. A.B.

PREVIOUS RECORDS. Murmansk Field Station, Tyuva Bay [Fedotov, 1912, as *Tarentula a.*]; Teriberka [Shokhin et al., 2004, as *T. a.*].

RANGE. Holarctic polyzonal.

Arctosa alpigena (Doleschall, 1852)

1912 *Arctosa alpigena* — Fedotov: 466.

2004 *Tricca alpigena* — Shokhin et al.: 142.

MATERIAL. **Zonal**: 1 ♀, Teriberka, undershrub-moss-lichen mountain tundra with *Betula nana*, *Empetrum* sp., *Pleurozium schreberi*, *Cladonia* sp., *Cetraria* sp. 4.VII.2008, leg. L.R. & V.S.; 1 ♀, near Tretie Titovskoye Lake, dwarf birch-lichen mountain tundra with *Betula nana, Cladonia* sp., 4–6.VIII.2009, leg. V.P.; 1 ♀, Dal'niye Zelentsy, lichen tundra on slope of hill, pitfall traps, 4–11.VII.2009, leg. A.B. **Intra**: 5 ♂♂, 3 ♀♀, Dal'niye Zelentsy, sedge-sphagnum peatbog, pitfall traps, 4–26.VII.2009, leg. A.B.; 1 ♂, 1 ♀, meadow with *Geranium* sp. in *Betula* sp. & *Salix* sp. stands, pitfall traps, 13–26.VII.2009, leg. A.B.; 2 ♂♂, 1 ♀, sedge-sphagnum peatbog, pitfall traps, 4–26.VII.2009, leg. A.B. **Azonal**: 2 ♂♂, 3 ♀♀, Dal'niye Zelentsy, meadow-like community on slope to sea, pitfall traps, 4–26.VII.2009, leg. A.B. **Anthro**: 1 ♀, Teriberka, ruderal plant community with *Poa* sp., *Deschampsia caespitosa*, *Epilobium angustifolium*, etc., 3.VII.2008, leg. L.R. & V.S.

PREVIOUS RECORDS. Lodeynaya Bay [Fedotov, 1912]; Teriberka [Shokhin et al., 2004, as *Tricca a.*].

RANGE. Holarctic polyzonal.

Pardosa agrestis (Westring, 1861)

2004 *Pardosa monticola* — Shokhin et al.: 142, not seen.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004].

COMMENTS. A record of *P. monticola* (Clerck, 1757) most probably refers to *P. agrestis*. For details, see Zyuzin [1979].

RANGE. Palaearctic polyzonal.

Pardosa agricola (Thorell, 1856)

MATERIAL. **Zonal**: 1 ♀, Teriberka, undershrub-moss tundra with *Empetrum* sp., *Rubus chamaemorus*, *Pleurozium schreberi*, 4.VII.2008, leg. L.R. & V.S.

COMMENTS. This is the northernmost known distribution of the species.

RANGE. European boreo-nemoral.

Pardosa amentata (Clerck, 1757)

1912 *Lycosa saccata* — Fedotov: 467.

2004 *Pardosa amentata* — Shokhin et al.: 142.

MATERIAL. **Intra**: 8 ♂♂, 7 ♀♀, Dal'niye Zelentsy, *Salix* sp. with *Sphagnum* sp. in depression on slope, pitfall traps, 4–26.VII.2009, leg. A.B.; 1 ♂, swampy bank of lake, pitfall traps, 4–26.VII.2009, leg. A.B.; 2 ♀♀, *Betula* sp. sparse forest, pitfall traps, 8–26.VII.2009, leg. A.B.; 12 ♂♂, 2 ♀♀, sandy bank of lake, pitfall traps, 8–16.VII.2009, leg. A.B. **Anthro**: 1 ♀, Teriberka, agricultural meadow with *Deschampsia caespitosa*, *Phleum pratense*, *Epilobium angustifolium*, etc., 4.VII.2008, leg. L.R. & V.S.; 1 ♀, ruderal plant community with *Poa* sp., *Deschampsia caespitosa*, *Epilobium angustifolium*, etc., 3.VII.2008, leg. L.R. & V.S.

PREVIOUS RECORDS. Shalim Island, Pala Bay, Srednyaya Bay, Tyuva Bay [Fedotov, 1912, as *Lycosa saccata* (Linnaeus, 1758)], Teriberka [Shokhin et al., 2004].

COMMENTS. Shalim Island is the northernmost known distribution of the species.

RANGE. European boreo-nemoral.

Pardosa atrata (Thorell, 1873)

2004 *Pardosa atrata* — Shokhin et al.: 142.

MATERIAL. **Intra**: 15 ♂♂, 14 ♀♀, Dal'niye Zelentsy, sedge-sphagnum peatbog, pitfall traps, 4–26.VII.2009, leg. A.B.; 2 ♀♀, swampy bank of lake, pitfall traps, 4–26.VII.2009, leg. A.B.; 4 ♂♂, 4 ♀♀, sedge-sphagnum peatbog, pitfall traps, 4–26.VII.2009, leg. A.B.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004].

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. Palaearctic boreo-nemoral.

Pardosa eiseni (Thorell, 1875)

2004 *Pardosa eiseni* — Shokhin et al.: 142.

MATERIAL. **Intra**: 1 ♀, Dal'niye Zelentsy, meadow with *Geranium* sp. in *Betula* sp. & *Salix* sp. stands, pitfall traps, 13–26.VII.2009, leg. A.B. **Azonal**: 1 ♀, meadow-like community on slope to sea, pitfall traps, 4–14.VII.2009, leg. A.B.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004].

COMMENTS. Teriberka is the northernmost known distribution of the species.

RANGE. Palaearctic boreal.

Pardosa hyperborea (Thorell, 1872)

1912 *Lycosa hyperborea* — Fedotov: 470.
2004 *Pardosa hyperborea* — Shokhin et al.: 142.

MATERIAL. **Intra**: 1 ♂, Teriberka, Orlovka River valley, swampy meadow with *Betula nana*, *Carex* sp., *Eriophorum* sp., *Vaccinium oxycoccus*, *Rubus chamaemorus*, *Menyanthes trifoliata*, *Andromeda polifolia*, *Sphagnum* sp., 9.VII.2008, leg. L.R. & V.S.; 1 ♂, Orlovka River valley, swampy meadows with *Betula nana*, *Carex* sp., *Eriophorum* sp., *Vaccinium oxycoccus*, *Rubus chamaemorus*, *Menyanthes trifoliata*, *Andromeda polifolia*, *Sphagnum* sp. 10.VII.2008, leg. L.R. & V.S.; 5 ♂♂, Dal'niye Zelentsy, *Salix* sp. with *Sphagnum* sp. in depression on slope, pitfall traps, 4–11.VII.2009, leg. A.B.; 1 ♂, flood pebble bank of river, pitfall traps, 8–20.VII.2009, leg. A.B. **Anthro**: 2 ♀♀, *Betula tortuosa* undergrowth on airfield with *Empetrum* sp., *Vaccinium myrtillus*, *Pleurozium schreberi*, *Hylocomium* sp., etc., 5.VII.2008, leg. L.R. & V.S.

PREVIOUS RECORDS. Murmansk Field Station, Olen'ya Bay, Lodeynaya Bay [Fedotov, 1912, as *Lycosa h.*]; Teriberka [Shokhin et al., 2004].

RANGE. Holarctic boreo-nemoral.

Pardosa lasciva L. Koch, 1879

MATERIAL. **Intra**: 1 ♂, 1 ♀, Dal'niye Zelentsy, flood peddle bank of river, pitfall traps, 8–20.VII.2009, leg. A.B.

COMMENTS. Dal'niye Zelentsy is the northernmost known distribution of the species.

RANGE. Palaearctic boreal.

Pardosa lugubris (Walckenaer, 1802)

1912 *Lycosa chelata* — Fedotov: 468.

MATERIAL. **Intra**: 1 ♀, Teriberka, Orlovka River valley, elfin *Betula* sp. sparse forest on gentle slope with *Vaccinium myrtillus*, *Gymnocarpium dryopteris*, *Cornus suecica*, no moss or lichen, 9.VII.2008, leg. L.R. & V.S.; 1 ♂, Orlovka River valley, swampy meadow with *Betula nana*, *Carex* sp., *Eriophorum* sp., *Vaccinium oxycoccus*, *Rubus chamaemorus*, *Menyanthes trifoliata*, *Andromeda polifolia*, *Sphagnum* sp., 9.VII.2008, leg. L.R. & V.S. **Anthro**: 1 ♂, meadow in village with *Calamagrostis* sp., *Epilobium angustifolium*, *Matricaria recutita*, *Taraxacum* sp., 11.VII.2008, leg. L.R. & V.S.

PREVIOUS RECORDS. Shalim Island, Tyuva Bay [Fedotov, 1912, as *Lycosa chelata* (Müller, 1764)].

COMMENTS. Shalim Island is the northernmost known distribution of the species.

RANGE. Palaearctic polyzonal.

Pardosa palustris (Linnaeus, 1758)

1912 *Pardosa tarsalis* — Fedotov: 468.
2004 *Lycosa palustris* — Shokhin et al.: 143, examined.

MATERIAL. **Zonal**: 1 ♂, Teriberka, undershrub-moss tundra with *Empetrum* sp., *Rubus chamaemorus*, *Pleurozium schreberi*, 4.VII.2008, leg. L.R. & V.S.; ca 200 ♂♂, 15 ♀♀, Dal'niye Zelentsy, tundra with *Betula nana*, *Vaccinium myrtillus*, *Empetrum* sp. on slope of hill, pitfall traps, 4–26.VII.2009, leg. A.B.; 56 ♂♂, 11 ♀♀, lichen tundra on slope of hill, pitfall traps, 4–26.VII.2009, leg. A.B.; 14 ♂♂, 3 ♀♀, lichen tundra on top of hill, pitfall traps, 4–26.VII.2009, leg. A.B. **Intra**: 5 ♂♂, Dal'niye Zelentsy, sedge-sphagnum peatbog, pitfall traps, 4–26.VII.2009, leg. A.B.; 20 ♂♂, *Betula* sp. sparse forest, pitfall traps, 8–26.VII.2009, leg. A.B.; 18 ♂♂, 1 ♀, flood pebble bank of river, pitfall traps, 8–20.VII.2009, leg. A.B.; 5 ♂♂, swampy bank of lake, pitfall traps, 4–26.VII.2009, leg. A.B.; 21 ♂♂, 3 ♀♀, meadow with *Geranium* sp. in *Betula* sp. & *Salix* sp. stands, pitfall traps, 13–26.VII.2009, leg. A.B.; 50 ♂♂, 1 ♀, *Salix* sp. with *Sphagnum* sp. in depression on slope, pitfall traps, 4–26.VII.2009, leg. A.B.; 22 ♂♂, 4 ♀♀, sandy bank of lake, pitfall traps, 8–16.VII.2009, leg. A.B.; 23 ♂♂, sedge-sphagnum peatbog, pitfall traps, 4–26.VII.2009, leg. A.B. **Azonal**: 220 ♂♂, 25 ♀♀, meadow-like community on slope to sea, pitfall traps, 4–26.VII.2009, leg. A.B. **Anthro**: 1 ♀, Teriberka, agricultural meadow on airfield with *Deschampsia caespitosa* & *Epilobium angustifolium*, 5.VII.2008, leg. L.R. & V.S.

PREVIOUS RECORDS. Bolshoy Aynovskiy Island, Rybachiy Peninsula, Yekaterininskiy Island, Murmansk Field Station, Lodeynaya Bay, Karabelnaya Bay [Fedotov, 1912, as *Lycosa tarsalis* (Thorell, 1856)]; Teriberka [Shokhin et al., 2004].

RANGE. Holarctic polyzonal.

Pardosa prativaga (L. Koch, 1870)

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Olen'ya Bay [Fedotov, 1912].

RANGE. Palaearctic polyzonal.

Pardosa sphagnicola (F. Dahl, 1908)

1912 *Lycosa riparia* subsp. *sphagnicola* — Fedotov: 467.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Olen'ya Bay [Fedotov, 1912, as *Lycosa riparia* subsp. *sphagnicola* Dahl, 1908].

RANGE. Palaearctic polyzonal.

Pirata piraticus (Clerck, 1757)

MATERIAL. **Intra**: 1 ♂, Teriberka, *Carex-Sphagnum-Eriophorum* bog with *Salix* sp. stands, *Comarum palustre*, 6.VII.2008, leg. L.R. & V.S.; 1 ♂, Dal'niye Zelentsy, swampy bank of lake, pitfall traps, 4–26.VII.2009, leg. A.B.

RANGE. Holarctic polyzonal.

Pirata uliginosus (Thorell, 1856)

MATERIAL. **Intra**: 1 ♂, Teriberka, Orlovka River valley, swampy meadow with *Betula nana*, *Carex* sp., *Eriophorum* sp., *Vaccinium oxycoccus*, *Rubus chamaemorus*, *Menyanthes trifoliata*, *Andromeda polifolia*, *Sphagnum* sp., 9.VII.2008, leg. L.R. & V.S.

RANGE. Holarctic polyzonal.

Fam. AGELENIDAE (1)

Tegenaria domestica (Clerck, 1757)

1912 *Tegenaria derhami* — Fedotov: 465.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Sedlovaty Island [Fedotov, 1912, as *Tegenaria derhami* Scopoli, 1763].

RANGE. Cosmopolitan domestic.

Fam. HAHNIIDAE (2)

Cryphoeca silvicola (C.L. Koch, 1834)

1912 *Cryphoeca silvicola* — Fedotov: 465.

MATERIAL. **Zonal**: 1 ♀, Teriberka, near Tretie Titovskoye Lake, dwarf birch-lichen mountain tundra with *Betula nana*, *Cladonia* sp., 4–6.VIII.2009, leg. V.P.

PREVIOUS RECORDS. Kildin Island, Lodeynaya Bay [Fedotov, 1912].

RANGE. Palaearctic boreo-nemoral.

Hahnia ononidum Simon, 1875

2004 *Hahnia ononidum* — Shokhin et al.: 143.

MATERIAL. **Zonal**: 1 ♀, Dal'niye Zelentsy, lichen tundra on slope of hill, pitfall traps, 4–26.VII.2009, leg. A.B.; 2 ♂♂, 3 ♀♀, tundra with *Betula nana*, *Vaccinium myrtillus*, *Empetrum* sp. on slope of hill, pitfall traps, 4–26.VII.2009, leg. A.B.; 1 ♂, 1 ♀, *Betula* sp. sparse forest, pitfall traps, 8–26.VII.2009, leg. A.B. **Intra**: 1 ♂, Teriberka, Orlovka River valley, elfin *Betula* sp. sparse forest on gentle slope with *Vaccinium myrtillus*, *Cornus suecica*, *Geranium sanguineum*, *Epilobium angustifolium*, *Calamagrostis* sp., 9.VII.2008, leg. L.R. & V.S.; 1 ♂, Dal'niye Zelentsy, *Salix* sp. with *Sphagnum* sp. in depression on slope, pitfall traps, 4–11.VII.2009, leg. A.B. **Azonal**: 1 ♂, Dal'niye Zelentsy, meadow-like plant community on slope to sea, pitfall traps, 4–14.VII.2009, leg. A.B.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004].

RANGE. Holarctic boreo-nemoral.

Fam. DICTINIDAE (1)

Dictyna arundinacea (Linnaeus, 1758)

1912 *Dictyna arundinacea* — Fedotov: 451.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Murmansk Field Station [Fedotov, 1912].

RANGE. Holarctic polyzonal.

Fam. CLUBIONIDAE (3)

Clubiona germanica Thorell, 1871

1912 *Clubiona germanica* — Fedotov: 465.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Srednyaya Bay [Fedotov, 1912].

RANGE. Palaearctic polyzonal.

Clubiona kulczynskii Lessert, 1905

1912 *Clubiona borealis* — Fedotov: 464.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Srednyaya Bay, Tyuva Bay [Fedotov, 1912, as *Clubiona borealis* Thorell, 1871].

RANGE. Holarctic polyzonal.

Clubiona norvegica Strand, 1900

MATERIAL. **Intra**: 1 ♂, Teriberka, *Sphagnum-Carex* bog in tundra, 3.VII.2008, leg. L.R. & V.S.

RANGE. Holarctic.

Fam. GNAPHOSIDAE (4)

Gnaphosa microps Holm, 1939

MATERIAL. **Zonal**: 1 ♀, Teriberka, undershrub-moss tundra with *Empetrum* sp., *Rubus chamaemorus*, *Pleurozium schreberi*, 4.VII.2008, leg. L.R. & V.S.

RANGE. Holarctic boreal.

Micaria alpina L. Koch, 1872

2004 *Micaria alpina* — Shokhin et al.: 143.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004].

RANGE. Holarctic polyzonal.

Micaria pulicaria (Sundevall, 1831)

2004 *Micaria pulicaria* — Shokhin et al.: 143.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004].

RANGE. Holarctic polyzonal.

Haplodrassus soerenseni (Strand, 1900)

1912 *Drassodes soerenseni* — Fedotov: 452.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Lodeynaya Bay [Fedotov, 1912 as *Drassodes s*.].

RANGE. Palaearctic boreal.

Fam. PHILODROMIDAE (1)

Thanatus arcticus Thorell, 1872

1912 *Thanatus arcticus* — Fedotov: 463.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Murmansk Field Station [Fedotov, 1912].

RANGE. Holarctic arcto-boreal.

Fam. THOMISIDAE (4)

Ozyptila arctica Kulczyński, 1908

2004 *Ozyptila* sp. — Shokhin et al.: 143, examined.

MATERIAL. **Intra**: 1 ♀, Teriberka, Orlovka River valley, swampy meadows with *Betula nana*, *Carex* sp., *Eriophorum* sp., *Vaccinium oxycoccus*, *Rubus chamaemorus*, *Menyanthes trifoliata*, *Andromeda polifolia*, *Sphagnum* sp. 10.VII.2008, leg. L.R. & V.S.; 1 ♀, *Sphagnum-Carex* bog in tundra, 4–6.VIII.2009, leg. V.P. **Azonal**: 1 ♀, Dal'niye Zelentsy, meadow-like community on slope to sea, pitfall traps, 4–26.VII.2009, leg. A.B.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004, as *Ozyptila* sp.].

RANGE. Fennoscandian-Siberian-Nearctic arcto-boreal.

Ozyptila trux (Blackwall, 1846)

MATERIAL. **Intra**: 1 ♂, 4 ♀♀, Teriberka, Orlovka River valley, elfin *Betula* sp. sparse forest on gentle slope with *Vaccinium myrtillus*, *Cornus suecica*, *Geranium sanguineum*, *Epilobium angustifolium*, *Calamagrostis* sp., 9.VII.2008, leg. L.R. & V.S.; 1 ♂, Orlovka River valley, swampy meadow with *Betula nana*,

Carex sp., *Eriophorum* sp., *Vaccinium oxycoccus*, *Rubus chamaemorus*, *Menyanthes trifoliata*, *Andromeda polifolia*, *Sphagnum* sp., 9.VII.2008, leg. L.R. & V.S.; 1 ♀, *Sphagnum-Carex* bog in tundra, 3.VII.2008, leg. L.R. & V.S. **Anthro**: 1 ♂, 2 ♀♀, ruderal plant community with *Poa* sp., *Deschampsia caespitosa*, *Epilobium angustifolium*, etc., 3.VII.2008, leg. L.R. & V.S.

RANGE. Palaearctic polyzonal.

Xysticus albidus Grese, 1909

MATERIAL. **Zonal**: 4 ♂♂, 1 ♀, Dal'niye Zelentsy, lichen tundra on top of hill, pitfall traps, 4–26.VII.2009, leg. A.B.

RANGE. Fennoscandian-Siberian boreal.

Xysticus cristatus (Clerck, 1757)

2004 *Xysticus cristatus* — Shokhin et al.: 143, examined.

MATERIAL. **Anthro**: 1 ♀, Teriberka, *Betula tortuosa* undergrowth on airfield with *Empetrum* sp., *Vaccinium myrtillus*, *Pleurozium schreberi*, *Hylocomium* sp., etc., 4–6.VIII.2009, leg. V.P.

PREVIOUS RECORDS. Teriberka [Shokhin et al., 2004].

RANGE. Palaearctic polyzonal.

Fam. SALTICIDAE (3)

Evarcha arcuata (Clerck, 1757)

1912 *Evarcha arcuata* — Fedotov: 472.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Yekaterininskiy Island [Fedotov, 1912].

RANGE. Palaearctic polyzonal.

Evarcha falcata (Clerck, 1757)

1912 *Evarcha falcata* — Fedotov: 472.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Pala Bay [Fedotov, 1912].

RANGE. Palaearctic polyzonal.

Sitticus pubescens (Fabricius, 1775)

1912 *Sitticus pubescens* — Fedotov: 472.

REMARKS. This species is absent from the material examined.

PREVIOUS RECORDS. Lodeynaya Bay [Fedotov, 1912].

RANGE. Holarctic polyzonal.

Discussion

Thus, 105 species of spiders have been found in a tundra zone of the Kola Peninsula. The total is less than half that found in a tundra belt of the Russian Plain [see Tanasevitch & Koponen, 2007]. The reason is possibly attributable to the fact that the area of the Kola tundra is smaller than tundra area in the European plain and is not under the strong influence of the Siberian fauna. Further, the tundra zone of the Eastern Europe is penetrated by rivers flowing in a meridional direction, which supplies the southern elements in the tundra zone. Numerous species are moving northward in the wide valleys; the tundra parts do not fall outside the limits of valleys or river terraces, thus some southern elements enter on watersheds and occupy not only the intrazonal communities, but also even become elements of the zonal fauna.

The Kola tundra is not a continuous, uniform belt. It is appreciably fragmented by the strong vertical partitioning of the landscape, and the presence of numerous lakes and rivers which break and mask the zonality. To allocate a zonal faunistic kernel in the fauna of the Kola tundra, we have divided the investigated biotopes as zonal, intrazonal and azonal. These three biotopes correspond to certain types of vegetation (see above). We have also allocated anthropogenically modified biotopes, as being rather specific and very characteristic for the present tundra. Distributions of the spiders by the zonal-landscape types of the plant communities are as presented in Table 1. Unfortunately, not all spider findings of previous authors were accompanied by detailed descriptions of biotopes, thus it is difficult to define now what types of communities spiders have been collected in. Therefore, the table is based mostly on our original data. The table shows that the fauna of the zonal plant communities of the Kola tundra is the poorest. As is known, the zonal tundra communities are the biotopes with most pessimal values of abiotic factors. Therefore, those organisms living in the zonal communities must have specific adaptations for residing there, or have a wide range of ecological tolerances. It is obvious that there are few spider species have either specific adaptations or a wide range of tolerances. Poverty of tundra zonal communities is caused by a lack of vital space for soil-dwelling spiders and their potential victims: the inhabited layer (moss-lichen cover) is very thin. From the 21 species found in the tundra zonal communities, only one, *Agyneta nigripes*, is arcto-alpine. The others are typically boreal, e.g., *Cryphoeca silvicola*, *Gnaphosa microps*, *Macrargus multesimus*, *Mecynargus monticola*, *M. morulus*, *W. karpinskii*, etc., or polyzonal and ubiquitous, e.g., *Centromerus arcanus*, *Gonatium rubens*, *Metopobactrus prominulus*, *Oedothorax retusus*, and *Tiso aestivus*.

Unlike the extreme or pessimal conditions in the zonal communities, those abiotic factors in the intrazonal communities are smoothed and lacking lower extremes; the moss and leaf litter layer is much thicker than it is in the moss-lichen tundra, therefore, the taxonomic variety and the population density of spiders is much higher here. Thus, the fauna of the intrazonal communities of the tundra zone (52 species) is richer than that in the zonal community. Further, the typical boreal and the polyzonal species which have the majority of species, contain southern elements, e.g., *Agyneta mossica*, *Ceratinella scabrosa*, *Gongylidiellum latebricola*, *Oryphantes angulatus*, and *Tapinocyba pallens*.

Azonal plant communities occupy an insignificant space in the Kola tundra and have essentially less varia-

Table 1. Distribution of spiders between zonal-landscape types of plant communities in the Kola tundra.
Таблица 1. Зонально-ландшафтное распределение пауков Кольских тундр.

Taxa **Таксоны**	**Zonal-landscape types of plant communities** **Зонально-ландшафтные типы сообществ**			
	Zonal Зональные	Intrazonal Интра- зональные	Azonal Азональные	Anthropogenically modified biotopes Антропогенные биотопы
1	2	3	4	5
Fam. THERIDIIDAE				
Robertus lividus (Bl., 1836)		+	+	+
R. scoticus Jack., 1914	+	+		+
Fam. LINYPHIIDAE				
Agyneta conigera (O. P.-Cambr., 1863)		+		
A. mossica (Schikora, 1993)		+		
A. nigripes (Simon, 1884)	+			
Allomengea vidua (L. Koch, 1879)		+		
Bathyphantes gracilis (Bl., 1841)		+		
Bolephthyphantes index (Thor., 1856)		+		
Bolyphantes luteolus (Bl.,1833)			+	+
Centromerus arcanus (O. P.-Cambr., 1873)	+	+		+
Ceratinella brevipes (Westr., 1851)		+	+	
C. brevis (Wid., 1834)		+		
C. scabrosa (O. P.-Cambr., 1871)		+		
Cnephalocotes obscurus (Bl., 1834)				+
Diplocephalus cristatus (Bl., 1833)				+
Drepanotylus uncatus (O. P.-Cambr.,1872)		+		
Erigone arctica maritima Kulcz., 1902		+	+	+
E. atra Bl., 1833			+	+
E. tirolensis L. Koch, 1872			+	
Gonatium rubens (Bl., 1833)	+	+	+	+
Gongylidiellum latebricola (O. P.-Cambr., 1871)		+		
Hilaira herniosa (Thor., 1875)		+		
H. nubigena Hull, 1911		+		
Hypomma bituberculatum (Wid., 1834)		+	+	+
Hypselistes jacksoni (O. P.-Cambr., 1902)	+	+		
Kaestneria pullata (O. P.-Cambr., 1863)		+		
Leptorhoptrum robustum (Westr., 1851)		+		+
Macrargus multesimus (O. P.-Cambr., 1875)	+			
Maso sundevalli (Westr., 1851)		+		+
Mecynargus borealis (Jack., 1930)				+
M. monticola (Holm, 1943)	+	+		
M. morulus (O. P.-Cambr., 1873)	+	+		+
M. paetulus (O. P.-Cambr., 1875)				+
M. sphagnicola (Holm, 1939)				+
Metopobactrus prominulus (O. P.-Cambr., 1872)	+			
Micrargus herbigradus (Bl., 1854)				+
Minicia marginella (Wid., 1834)				+
Minyrioloides trifrons (O. P.-Cambr., 1863)		+		
Minyriolus pusillus (Wid., 1834)				+
Oedothorax gibbosus (Bl., 1841)			+	
O. retusus (Westr., 1851)	+	+	+	+
Oreoneta sinuosa (Tullgren, 1955)				+
Oreonetides vaginatus (Thor., 1872)			+	+
Oryphantes angulatus (O. P.-Cambr., 1881)		+	+	
Pelecopsis mengei Simon, 1926		+	+	+
Pocadicnemis pumila (Bl., 1841)		+		
Poeciloneta variegata (Bl., 1841)			+	

Table 1 (continuing)
Таблица 1 (продолжение)

1	2	3	4	5
Porrhomma convexum (Westr., 1851)				+
P. egeria Simon, 1884				
Semljicola barbiger (L. Koch, 1879)	+	+		
S. faustus (O. P.-Cambr., 1900)			+	
S. lapponicus (Holm, 1939)		+		+
Silometopus reussi (Thor., 1871)				+
Sisicus apertus (Holm, 1939)	+			
Tapinocyba pallens (O. P.-Cambr., 1872)		+		
Tenuiphantes alacris (Bl., 1853)			+	+
T. nigriventris (L. Koch, 1879)		+		
T. tenebricola (Wid., 1834)				+
Tiso aestivus (L. Koch, 1872)	+			+
Wabasso replicatus (Holm, 1950)		+		
Walckenaeria capito (Westr., 1861)				+
W. cuspidata Bl., 1833		+	+	
W. karpinskii (O. P.-Cambr., 1873)	+			+
W. kochi (O. P.-Cambr., 1872)		+		
W. mitrata (Menge, 1868)				
W. nudipalpis (Westr., 1851)				+
Zornella cultrigera (L. Koch, 1879)		+		+
Fam. TETRAGNATHIDAE				
Tetragnatha extensa (L., 1758)			+	
Fam. ARANEIDAE				
Araneus diadematus Cl., 1757				
Larinioides patagiatus (Cl., 1757)				
L. cornutus (Cl., 1757)				
Fam. LYCOSIDAE				
Alopecosa aculeata (Cl., 1757)		+		
Arctosa alpigena (Dol., 1852)	+	+	+	+
Pardosa agrestis (Westring, 1861)				
P. agricola (Thor., 1856)	+			
P. amentata (Cl., 1757)		+		+
P. atrata (Thor., 1873)		+		
P. eiseni (Thor., 1875)		+	+	
P. hyperborea (Thor., 1872)		+	+	+
P. lasciva L. Koch, 1879		+		
P. lugubris (Walck., 1802)		+		+
P. palustris (L., 1758)	+	+	+	+
P. prativaga (L. Koch, 1870)				
P. sphagnicola (F. Dahl, 1908)				
Pirata piraticus (Cl., 1757)		+		
P. uliginosus (Thor., 1856)		+		
Fam. AGELENIDAE				
Tegenaria domestica (Cl., 1757)				
Fam. HAHNIIDAE				
Cryphoeca silvicola (C.L. Koch, 1834)	+			
Hahnia ononidum Simon, 1875	+	+	+	
Fam. DICTYNIDAE				
Dictyna arundinacea (L., 1758)				
Fam. CLUBIONIDAE				
Clubiona germanica Thor., 1871				
C. kulczynskii Lessert, 1905				
C. norvegica Strand, 1900		+		
Fam. GNAPHOSIDAE				
Gnaphosa microps Holm, 1939	+			

Table 1 (continuing)
Таблица 1 (продолжение)

1	2	3	4	5
Haplodrassus soerenseni (Strand, 1900)				
Micaria alpina L. Koch, 1872				
M. pulicaria (Sund., 1831)				
Fam. PHILODROMIDAE				
Thanatus arcticus Thor., 1872				
Fam. THOMISIDAE				
Ozyptila arctica Kulcz., 1908		+	+	
O. trux (Bl., 1846)		+		+
Xysticus albidus Grese, 1909	+			
X. cristatus (Cl., 1757)				+
Fam. SALTICIDAE				
Evarcha arcuata (Cl., 1757)				
E. falcata (Cl., 1757)				
Sitticus pubescens (Fabr., 1775)				
TOTAL species:	**21**	**52**	**24**	**40**

tion than does the intrazonal. Accordingly, their fauna is poorer (24 species). As a specific element, it is possible to note only the arcto-alpine species, *Erigone tirolensis.*

Anthropogenically modified plant communities and biotopes are very rich with spiders (40 species), but the species here are generalists. That is, they come from many sources (e.g., tundra, Arctic, boreal, polyzonal, Holarctic, southern, etc.). These communities and biotopes are well-warmed places, good refuges that are protected from winds and precipitation; there is enough space for their webs and there is an abundance of prey. A complete spectrum of the zonal-landscape groups of spiders is represented here, and this is a place for the most probable detection of the introduced species. Some species were found only here, i.e., *Cnephalocotes obscurus*, *Diplocephalus cristatus*, *Mecynargus sphagnicola*, *Micrargus herbigradus*, *Minyriolus pusillus*, *Porrhomma convexum*, *Tenuiphantes tenebricola*, and *Walckenaeria nudipalpis*.

As is known in the southern tundra, the intrazonal and azonal communities serve as a shelter not only for southern faunistic elements, but also for Arctic ones. From three arcto-alpine species, only *Agyneta nigripes* is found in zonal tundra; *Ozyptila arctica* lives in intrazonal and azonal communities, *Erigone tirolensis* is found only in azonal communities. In general, the penetration of the Arctic species into southern tundra goes by settling of the intrazonal, azonal and anthropogenically modified biotopes. This has been shown repeatedly by Eskov [1986], Tanasevitch & Koponen [2007], and the reason for this is not yet clear. It is very strange, but no real Arctic elements have yet been found in Kola Peninsula tundra belt, species such as *Halorates holmgreni* (Thorell, 1871), *H. spetsbergensis* (Thorell, 1872), or any other Arctic species that habit the European sector of the Arctic.

Conclusions

The spider fauna of a tundra landscape zone of the Kola Peninsula has a typical boreal face, and is comprised of boreal and polyzonal European or widespread species. No real Arctic elements are found here. The zonal plant communities have the fewest spider species, as they lack the specific elements and are comprised of boreal, polyzonal or ubiquitous species. The spider fauna of the intrazonal and anthropogenic communities is much richer, and together with azonal communities, they serve as a shelter not only for the southern elements, but also for the Arctic species.

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